

(i) APPLICANT: Imajo, Nobuko
Yamagata, Yukari
Kato, Hideo
Satomura, Shinji
Nakamura, Kenji

(ii) TITLE OF INVENTION: POLYPEPTIDE AND PROCESS FOR MEASURING LIVING BODY COMPONENTS USING THE SAME

(iii) NUMBER OF SEQUENCES: 23

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: ARMSTRONG, WESTERMAN, HATTORI, MCLELAND & NAUGHTON

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(C) CITY: Washington

(D) STATE: DC

(E) COUNTRY: USA

(F) ZIP: 20006

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk

(B) COMPUTER: IBM PC compatible

(C) OPERATING SYSTEM: PC-DOS/MS-DOS

(D) SOFTWARE: PatentIn Release #1.0, Version #1.30

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: US 08/680,855

(B) FILING DATE: 16-JUL-1996

(C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: JP 07-203886

(B) FILING DATE: 18-JUL-1995

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: JP 08-084770

(B) FILING DATE: 13-MAR-1996

(viii) ATTORNEY/AGENT INFORMATION:

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(B) REGISTRATION NUMBER: 31,541

(C) REFERENCE/DOCKET NUMBER: 960587

(ix) TELECOMMUNICATION INFORMATION:

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(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS:

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEO ID NO:1:

(2) INFORMATION FOR SEQ ID NO:2:

(ii) MOLECULE TYPE: peptide

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(ix) FEATURE:
      (A) NAME/KEY: Modified-site
      (B) LOCATION: 5
      (D) OTHER INFORMATION: /product= "B-alanine"
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(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Ala Xaa Xaa Xaa Ala
1 5

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

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(ix) FEATURE:
      (A) NAME/KEY: Modified-site
      (B) LOCATION: 2..6
      (D) OTHER INFORMATION: /product= "Sulfated Serine"
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(ix) FEATURE:
      (A) NAME/KEY: Modified-site
      (B) LOCATION: 7
      (D) OTHER INFORMATION: /product= "B-alanine"
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(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Ala Xaa Xaa Xaa Xaa Xaa Ala
1 5

(2) INFORMATION FOR SEQ ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
(B) LOCATION: 2..9
(D) OTHER INFORMATION: /product= "Sulfated Serine"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
(B) LOCATION: 10
(D) OTHER INFORMATION: /product= "B-alanine"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ala
1 5 10

(2) INFORMATION FOR SEQ ID NO:5:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
(B) LOCATION: 1..8
(D) OTHER INFORMATION: /product= "Sulfated Serine"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
(B) LOCATION: 9
(D) OTHER INFORMATION: /product= "B-alanine"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ala
1 5

(2) INFORMATION FOR SEQ ID NO:6:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

- (A) NAME/KEY: Modified-site
(B) LOCATION: 4..13
(D) OTHER INFORMATION: /product= "Sulfated Serine"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Ala Ala Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10

(2) INFORMATION FOR SEQ ID NO:7:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 22 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
(B) LOCATION: 2..21
(D) OTHER INFORMATION: /product= "Sulfated Serine"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
(B) LOCATION: 22
(D) OTHER INFORMATION: /product= "B-alanine"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15
Xaa Xaa Xaa Xaa Xaa Ala
20

(2) INFORMATION FOR SEQ ID NO:8:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
(B) LOCATION: 2..4
(D) OTHER INFORMATION: /product= "Sulfated Serine"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
(B) LOCATION: 5
(D) OTHER INFORMATION: /product= "B-alanine"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
(B) LOCATION: 6..8

(D) OTHER INFORMATION: /product= "B-alanine"

Ala Xaa Xaa Ala Xaa Xaa Ala Xaa Xaa Ala
1 5 10

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 2..4
(D) OTHER INFORMATION: /product= "Sulfated Tyrosine"

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 5
(D) OTHER INFORMATION: /product= "B-alanine"

Ala Xaa Xaa Xaa Ala
1 5

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 2..5
(D) OTHER INFORMATION: /product= "Sulfated Tyrosine"

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 6
(D) OTHER INFORMATION: /product= "B-alanine"

Ala Xaa Xaa Xaa Xaa Ala
1 5

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 5 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:

(ii) MOLECULE TYPE: peptide

(A) NAME/KEY: Modified-site

(D) OTHER INFORMATION: /product= "Sulfated Tyrosine"

Ala Xaa Xaa Xaa Xaa
1 5

(i) SEQUENCE CHARACTERISTICS:

(B) TYPE: amino acid

(D) TOPOLOGY: linear

(A) NAME/KEY: Modified-site

(D) OTHER INFORMATION: /product= "Sulfated Tyrosine"

(A) NAME/KEY: Modified-site

(D) OTHER INFORMATION: /product= "B-alanine"

Ala Xaa Xaa Xaa Xaa Xaa Ala
1 5

(i) SEQUENCE CHARACTERISTICS:

(B) TYPE: amino. acid

(D) TOPOLOGY: linear

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(D) OTHER INFORMATION: /product= "Sulfated Tyrosine"

Ala Xaa Xaa Xaa Xaa Xaa
1 5

(2) INFORMATION FOR SEQ ID NO:15:

- ```
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 9 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS:
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
 (A) NAME/KEY: Modified-site
 (B) LOCATION: 2..8
 (D) OTHER INFORMATION: /product= "Sulfated Tyrosine"

(ix) FEATURE:
 (A) NAME/KEY: Modified-site
 (B) LOCATION: 9
 (D) OTHER INFORMATION: /product= "B-alanine"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ala
1 5
```

(2) INFORMATION FOR SEQ ID NO:16:

- ```
(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 8 amino acids
    (B) TYPE: amino acid
    (C) STRANDEDNESS:
    (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
    (A) NAME/KEY: Modified-site
    (B) LOCATION: 2..8
    (D) OTHER INFORMATION: /product= "Sulfated Tyrosine"
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(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5

(2) INFORMATION FOR SEQ ID NO:17:

- ```
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS:
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
 (A) NAME/KEY: Modified-site
 (B) LOCATION: 2..9
 (D) OTHER INFORMATION: /product= "Sulfated Tyrosine"
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- (A) NAME/KEY: Modified-site  
(B) LOCATION: 10  
(D) OTHER INFORMATION: /product= "B-alanine"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ala  
1 5 10

(2) INFORMATION FOR SEO ID NO:18:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site  
(B) LOCATION: 2..9  
(D) OTHER INFORMATION: /product= "Sulfated Tyrosine"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
1 5

(2) INFORMATION FOR SEO ID NO:19:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 12 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site  
(B) LOCATION: 2..11  
(D) OTHER INFORMATION: /product= "Sulfated Tyrosine"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site  
(B) LOCATION: 12  
(D) OTHER INFORMATION: /product= "B-alanine"

(xi) SEQUENCE DESCRIPTION: SEO ID NO:19:

Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ala  
1 5 10

(2) INFORMATION FOR SEQ ID NO:20:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 14 amino acids  
(B) TYPE: amino acid

(ii) MOLECULE TYPE: peptide

(A) NAME/KEY: Modified-site  
(B) LOCATION: 2..9  
(D) OTHER INFORMATION: /product= "Sulfated Serine"

(A) NAME/KEY: Modified-site  
(B) LOCATION: 10..14  
(D) OTHER INFORMATION: /product= "Sulfated Tyrosine"

Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
1 5 10

(i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 13 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS:  
 (D) TOPOLOGY: linear

(A) NAME/KEY: Modified-site  
(B) LOCATION: 1..8  
(D) OTHER INFORMATION: /product= "Sulfated Serine"

(A) NAME/KEY: Modified-site  
(B) LOCATION: 9..13  
(D) OTHER INFORMATION: /product= "Sulfated Tyrosine"

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
1 5 10

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 7 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS:  
(D) TOPOLOGY: linear

(A) NAME/KEY: Modified-site  
(B) LOCATION: 2..6  
(D) OTHER INFORMATION: /product= "Phosphated Tyrosine"

(D) OTHER INFORMATION: /product= "B-alanine"

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(D) TOPOLOGY: linear

(D) OTHER INFORMATION: /product= "B-alanine"

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